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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,111	01/04/2002	Venkatesh R. Iyer	NAIIP066/01.308.01	8633

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EXAMINER

SWEARINGEN, JEFFREY R

ART UNIT PAPER NUMBER

2145

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,111

Applicant(s)

IYER ET AL.

Examiner

Jeffrey R. Swearingen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11, 13-22, 24, 26, 27, 29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 13-22, 24, 26, 27, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2 December 2005 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-9, 11, 13-22, 24, 26-27 and 29-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant failed to describe in the specification how validity was determined for an application verb or a state machine or what validity consisted of. Applicant failed to describe in the specification how data from a packet would be separated into multiple flows.

4. Claims 1-9, 11, 13-22, 24, 26-27 and 29-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. As currently amended, the language of claims 1, 14, and 27 refers to *updating a state machine determining whether the state machine is in a valid state*. It is not possible to update a state machine that determines whether said state machine was in a valid state, since such updating would prevent said state machine from performing said determination accurately.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-9, 11, 13-22, 24, 26-27 and 29-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Applicant defined application verb as being any transaction. One of ordinary skill in the art would be unable to ascertain what was used as the benchmark to determine validity of an application verb. Multiple interpretations exist of this concept, including validity based on a numeric value, validity based upon the complete error free receipt of a data transmission, validity based on the result of the transaction, validity based upon comparing the content of a data transmission to a table, and validity based upon the parameters of the flow.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-9, 11, 13-22, 24, 26-27, and 29-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Dietz (U.S. Patent No. 6,839,751).

10. In regard to claims 1, 14, and 27, Dietz disclosed *receiving packet data; aggregating the packet data into flows; identifying application verbs and information relating to them associated with the flows; determining whether the application verbs are valid; responsive to determining that the application verbs are valid, updating a state machine determining whether the state machine is in a valid state; and responsive to determining that the state machine is in a valid state, storing the information relating to the application verbs, wherein the information relating to the application verbs is capable of being used to*

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calculate response times associated therewith. In column 7, lines 53-65, an embodiment was presented wherein the packet was examined to produce a signature relating the packet to a network flow. This signature was compared with future packets, or *determining whether the application verbs are valid.* If the signature was a new application, the signature was created, *updating a state machine responsive to determining whether the state machine is in a valid state.* See further column 11, lines 59-63, where *responsive to determining that the state machine is in a valid state, storing the information relating to the application verbs.* See further Abstract; column 2, lines 11-27; column 2, lines 44-46; column 4, lines 14-33; column 5, line 65 – column 6, line 19; column 11, lines 11-58; column 12, lines 55-65; column 13, lines 1-27; column 22, line 61 – column 23, line 6; column 31, lines 25-47; column 32, lines 1-51.

11. In regard to claims 2 and 15, Dietz further disclosed *determining whether the packet data is associated with a new flow.* See Dietz, column 4, lines 26-30.

12. In regard to claims 3 and 16, Dietz further disclosed *if the packet data is determined to be associated with a new flow, further comprising creating a flow, creating a data structure, and inserting the data structure into the flow.* See Dietz, column 4, lines 16-20; column 9, lines 40-58.

13. In regard to claims 4 and 17, Dietz further disclosed *identifying a protocol identifier associated with the flow, and determining a number of known application verbs associated with the protocol identifier.* See Dietz, column 6, lines 20-35; column 7, lines 53-65; column 9, lines 27-67; column 11, lines 30-36.

14. In regard to claims 5 and 18, Dietz further disclosed *allocating memory for the data structure based on the number of known application verbs associated with the protocol identifier.* See Dietz, column 11, lines 30-36.

15. In regard to claims 6 and 19, Dietz further disclosed *the number of application verbs associated with the protocol identifier is determined utilizing a map.* See Dietz, column 27, line 41 – column 28, line 55.

16. In regard to claims 8 and 21, Dietz further disclosed *inserting a data structure into the flows.* See Dietz, column 4, lines 16-20; column 9, lines 40-58.

17. In regard to claims 9 and 22, Dietz further disclosed *populating and updating the data structure with the information.* See Dietz, column 9, lines 40-58.

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18. In regard to claims 11 and 24, Dietz further disclosed *determining whether a response is complete, and calculating a response time if it is determined that the response is complete*. See Dietz, column 22, line 61 – column 23, line 10; column 40, lines 26-52.

19. In regard to claims 13 and 26, Dietz further disclosed *the information relating to the application verbs is capable of being used to calculate response times associated therewith in real-time*. See Dietz, column 32, lines 1-51.

20. The limitations of claim 30 are embodied within claims 1-6, 8-9, and 11.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 7, 20 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dietz.

23. In regard to claims 7 and 20, Dietz did not explicitly state the use of RMON. Dietz described that avoiding the use of RMON will improve performance in the system in column 34, lines 61-67. It would have been obvious to one of ordinary skill in the art at the time of the invention to use RMON with Dietz since Dietz stated that he found a way to avoid using RMON in order to improve system performance. Therefore, according to Dietz, the use of RMON was an older technological variant of the Dietz invention.

24. Claim 29 has substantially the same limitations as claims 1 and 4-7.

Response to Arguments

25. Applicant's arguments filed 2 December 2005 have been fully considered but they are not persuasive.

26. The objection to the specification has been removed.

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27. The previous rejection of claims 12, 25, 28, and 30 under 35 U.S.C. 112, first paragraph is withdrawn. New rejections have been issued under 35 U.S.C. 112, first and second paragraphs.

28. Applicant's arguments alleged that Dietz failed to disclose determining the validity of application verbs and a state machine. Applicant failed to disclose the important aspects of determining validity of an application verb in the specification, which is important since Applicant admitted, "These aspects of the claimed invention are greatly beneficial. By storing the information relating to the application verbs responsive to a determination of a state machine, which in turn is updated responsive to determining that the application verbs are valid, the claimed invention limits the information stored relating to the application verbs and allows for selective analysis and recording of application verbs." See remarks of 2 December 2005, page 12. Applicant failed to disclose how the application verbs are determined valid, and what factors are used in determining said validity. Therefore, Applicant failed to disclose an aspect of the invention that Applicant admitted was "greatly beneficial." Likewise, Applicant alleged that Dietz failed to disclose the determination of the validity of a state machine, but Applicant failed to disclose this aspect in the specification.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

30. Begel, Andrew et al. "BPF+: Exploiting Global Data-Flow Optimization in a Generalized Packet Filter Architecture." Proceedings of the Conference on Applications, Technologies, Architectures, and Protocols for Computer Communication. ACM Press. 1999. pp. 123-134.

31. Ravindran, K. et al. "Incorporation of Flow and QoS Control in Multicast Routing Architectures." Proceedings of the 7th International Conference on Computer Communications and Networks. IEEE Press. October 12-15 1998. pp. 312-320.

32. Joo, Youngmi et al. "TCP/IP Traffic Dynamics and Network Performance: A Lesson in Workload Modeling, Flow Control, and Trace-Driven Simulations." ACM SIGCOMM Computer Communication Review. Volume 31, Issue 2. April 2001. pp. 25-37. ACM Press.

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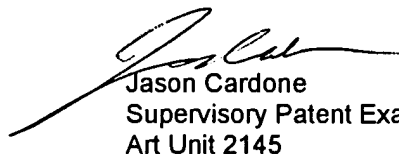
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34.	Chapman et al.	EP 1 049 299 A1
35.	Lyles et al.	U.S. Patent No. 5,917,822
36.	Bellenger	U.S. Patent No. 6,256,306 B1
37.	Chuah et al.	U.S. Patent No. 6,408,001 B1
38.	Awadallah et al.	U.S. Patent No. 6,449,251 B1
39.	Riddle et al.	U.S. Patent No. 6,457,051 B1
40.	Davies et al.	U.S. Patent No. 6,483,805 B1
41.	Walia et al.	U.S. Patent No. 6,636,480 B1
42.	Dittia et al.	U.S. Patent No. 6,654,342 B1
43.	Ketcham	U.S. Patent No. 6,721,334 B1

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jason Cardone
Supervisory Patent Examiner
Art Unit 2145